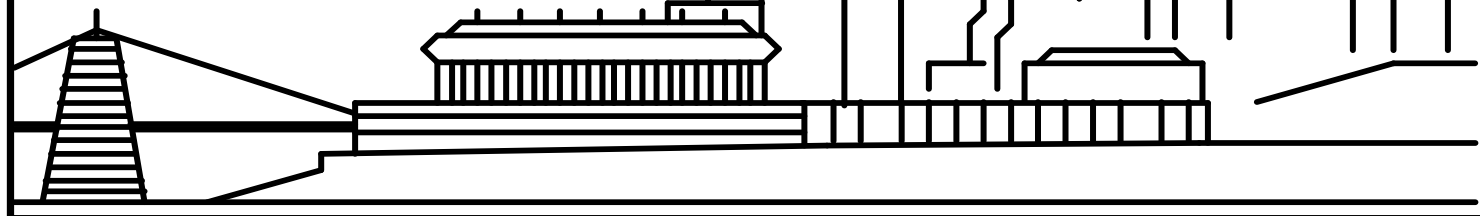




INSTITUTE OF
ELECTRICAL &
ELECTRONICS
ENGINEERS, INC.



MARCH 1999

IEEE CINCINNATI SECTION NEWSLETTER

MARCH MEETING

Website Building for Beginners

DATE : March 23, 1999

PLACE : The new Northern Kentucky Convention Center – In Meeting Room #6 (Second Floor).
The March meeting will be held in conjunction with the ISA/IEEE Automation Expo (see Admissions coupon below).

TIME : 5:00 to 7:00 PM (IEEE-hosted dinner with hors d'oeuvres)
7:00 PM (Program)
8:30 PM (Approx.- Adjournment)

THE CINCINNATI SECTION NOW HAS ITS OWN VOICE MAILBOX for making reservations for meetings or for providing comments or suggestions to **YOUR** Executive Committee.

Please call the Cincinnati Section Voice Mailbox at 629-9380, by **Noon, Monday, March 22, 1999** if you plan to attend. Please leave your **Name** and **IEEE Member Number**.

ABOUT THE MEETING: The presentation, by Mr. Rob Pickering, will cover the basics of web site building for beginners. There will be no assumptions made as to the technical level of the attendees. He will be covering the basics of building a personal or small business web site. He will cover the basics of HTML, what it is, and how to utilize it. Additionally, he will cover several web page editors including Microsoft Frontpage and Adobe Pagemill. This will not be a tutorial on how to use these software programs, only providing some basic information on what they are, and why you would choose one over the other. He will also cover some tutorial web sites that will guide you through the process of creating a web site. This will be an open discussion, so bring ideas and questions with you.

ABOUT THE SPEAKER: Mr. Pickering is the Director of Internet Service Development at Cincinnati Bell Telephone.

	1999	
Cincinnati Automation Expo		
Expo Admission Coupon		
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CHAIR'S MESSAGE

by Ron Harbaugh, Section Chair

The month of March is rolling in with the usual mixed weather patterns to keep our attention. March also keeps the attention of the Cincinnati Section's officers with the activities of IEEE. Following closely on the heels of the ESC Awards dinner, on February 25, 1999, is the Region 2 meeting to be held on March 6 and 7, in Arlington, Virginia. James Everly, your Cincinnati Section Vice Chairman, will represent our Section at the meeting this year. Jim and I are preparing our items for presentation at the meeting. Jim will report the activities of the Region 2 meeting when he returns. If you have any concerns or items for Jim to take to the meeting, please send him an email or fax message with your topic of interest. Jim's email is j.everly@ieee.org and his fax is 556-4224.

We departed from our usual 4th Thursday of the month meeting day for March. I hope it doesn't confuse anybody. The Section meeting will be held March 23, which is Tuesday, to take advantage of IEEE/ISA show at the Northern Kentucky Convention Center in Covington. There is an announcement elsewhere in the newsletter providing instructions for signing up for the March Section meeting. I heard there will be eats and drinks available before the meeting for all attendees. It sounds like a good time along with an interesting technical topic.

Our April 22nd meeting will be held at the Quality Inn located in Norwood. The program is still in the planning stages.

June 4 is the annual IEEE Golf Outing that many of the Section members enjoy attending. Mark your calendars for that one.

Our next Section Executive Committee meeting is scheduled for the evening of April 29, 1999. If you, as a Section member, would like to attend the meeting, please contact me for additional information. My telephone number and email address are at the end of this newsletter.

And finally, I asked for input from the members and I got some. A request has come to share our membership list with other Section members so we all could know a little more about our members and who they are. I have not had time to share this thought with the Executive Board. I put this information out to you to let me know if you, as a member, object to the Section's officers releasing this information. I don't know yet, but there may be a national IEEE policy about release of this information in any form by the Sections. I only know that IEEE membership lists are closely guarded even though they aren't considered secret. My proposal involves release of membership information to other section members with a current IEEE membership number.

A MESSAGE FROM YOUR PACE CHAIRMAN

by Bill Lohner, PACE Chairman

"A Network of Professional Activities for Engineers"

I would like to report that we have made several presentations of the "What Is An Engineer" slide program at some of the schools in our area. We have gotten good responses from the presentations. The presentation takes about 45 minutes or more depending on questions from the students. The program is usually presented to 3 or 4 classes at the same school. A presentation at one school with preparation and presentation essentially takes a whole day. The program, which is designed for students in grades K-6 thru high school, also tells the presenter what questions and responses to expect from the students. Our goal is to encourage students to continue high school and math education on thru high school. If you wish to present one of these programs please call Bill Lohner at 385-7268.

Jack Reed, a member of our PACE committee, has been working with the Forest Hills School District on a "Career Path" program. Jack has recruited seven retired engineers from the RESC to help with programs at Forest Hills. Hopefully in the next Newsletter we will be able to report what programs the group will be involved with at Forest Hills. Call Jack Reed at 231-7831 if you wish to help.

The "Career Path" curriculum is a Cincinnati Public School program headquartered at Woodward High School and chaired by a consultant, Dr. Herbert Smitherman. If you are interested in this program please call him at 758-7354.

The PACE Committee is looking at blending into existing programs as well as new programs. I encourage you to call the individuals mentioned in this article if you want to help.

Bill Lohner
PACE Chairman
Cincinnati Section IEEE
Phone No. 513-385-7268

NEW MEMBERS

The following individuals are new IEEE members who are in our Section:

ANN M. BALSTER	GEORGE Q. KANG	GARY L. ROBINSON
BRIAN BEBEAU	ROBERT KEEFER	MARK D. ROTTMANN
JOSEPH BLAYLOCK	JOHN J. KOZACIK	SCOTT M. SCHOLZ
PHILIP J. BORGEMENKE	BOSUI LIU	GARRY A. SMITH
MOHAN K. DHULIPATI	DAVID B. LOMAN	TOM M. STEVELT
PAUL G. EAGAR	JUNHAO X. MICHAEL	CLIFFORD STILL
BERRY J. FOSTER	EVELYN C. MAK	LARRY K. WHITE
CHRISTOPHER J. HINNINGER	SUDHIR NELVAGAL	ANTHONY H. WILLIAMITIS
HYUNDAE HONG	THOMAS C. NGUYEN	FRANCK WILLIER
SURESH V. KAMATH	TERRY G. PERRELLA	PENCHUAN YU
	GREGOR N. PURDY	

The following individuals are existing IEEE members who have moved into the Cincinnati Section:

NIMESH A. AMIN	WILLIAM T. DONOFRIO	KEVIN A. PENNYCUFF
FORREST O. ARNOLD	LARRY FUSON	CHRISTOPHER A. WHITE
JONATHAN D. COHEN	KELLI ANN MOWERY	WEI ZHANG

We wish to extend our welcome to all of our Section's new members!!!

The Shift to Software: Part 2

by Dick Reiman, Historian

Software companies need an income to overcome their market failures, and Microsoft need cash reserves to survive. In August 1980, Gates had signed a contract for a royalty on MOS-DOS for each IBM or IBM-compatible personal computer sold, and millions of dollars poured in. MOS-DOS had become the link between hardware and software for each of them.

Microsoft attempted to diversify with a spreadsheet called MULTIPLAN, which was to compete with VisiCal, but was no match for Lotus 1-2-3. In 1982, Microsoft developed a word processing package called WORD. Despite expensive publicity, it had little impact on market leader WordStar. By 1983, Microsoft was only a weak sixth among the personal computer software developers, but income from MOS-DOS continued to pour in and overcome their failures.

Apple had introduced the Macintosh as a business machine in 1984, but it was not well suited to the business market because of insufficient memory, and it couldn't compete with "IBM-compatible" products. Microsoft was acquainted with the Macintosh during development by it of some minor parts in 1981. Microsoft had not, however, been successful in writing spreadsheets, and word processors, but the Macintosh offered them an opportunity to develop a range of sophisticated applications, in a non-competing market. Later, Microsoft converted these applications to would run on IBM-compatible machines. By 1987, Microsoft was deriving half of its revenue from its Macintosh software. More importantly, working on the Macintosh gave Microsoft, firsthand knowledge of the technology of graphical user interfaces, on which to base its Windows operating system.

Several attempts were made to introduce a graphical-user interface before Windows. VisiCorp produced a system called "VisiOn", but it was only able to run on applications especially developed for it. Gary Kindall's Digital

Research, original developers of CP/M, the operating system used on 8-bit computers, was next to try when its GEM operating system was introduced in 1984. It lacked the capability of a full-scale operating system and did not succeed.

Microsoft's Windows was heavily based on the Macintosh user interface, and they signed a licensing agreement with Apple to copy the visual characteristics of the Macintosh. They estimated six program years to develop an operating system, but it would take eighty program years to complete, and contain 110,000 instructions. Though priced at \$99, sales of Windows were sluggish and failed to replace the popular MS-DOS operating system. Not until the late 1980's would Windows become truly practical with the advent of Intel's 386 and 486 more powerful chips. In April 1987, IBM and Microsoft announced the intention to jointly develop a new operating system, OS/2 to replace MS-DOS for the next generations of computers.

Microsoft, carried along by its revenues from MS-DOS, began to win market support for its Excel spreadsheet and Word. In 1987, it released Windows 2.0, and in May 1990 offered Windows 3.0. Apple sued Microsoft for copyright infringements, and IBM would offer its own operating system, OS/2. Microsoft would win both contests.

IEEE NEWS

IEEE TEAMS UP WITH A UNIVERSITY FOR A PILOT PROGRAM TO OFFER A WEB-DELIVERED COURSE

PISCATAWAY, NJ, 28 January, 1999 – The IEEE has created an alliance with the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC), Urbana, IL, to offer a web-delivered course on antennas and propagation.

This four-week course, designed to serve as a refresher for practicing engineers, will be based on the Internet. Classes run from April 1 to 30, 1999. Registration ends March 31, 1999. Course is limited to 30 students.

The course will provide learners with an analytical and intuitive understanding of antenna physics, expose them to antenna computer-aided design software, and introduce them to a variety of antenna structures of practical interest. The course will also cover recent developments in the wireless and personal communication systems. Those intending to register are expected to have a basic knowledge of electromagnetic wave theory outlining the general plane wave solution of Maxwell's equations, phenomena involving reflection and transmission of plane waves, transmission lines, and impedance matching techniques. Students who successfully complete the course will be awarded 3.6 IEEE Continuing Education Units (CEUs).

Eric Michielssen, Ph.D. will be instructing the course. Dr. Michielssen received his Ph.D. from the University of Illinois at Urbana-Champaign in 1992. He is an assistant professor in the UIUC Department of Electrical and Computer Engineering, associate director for the Center of Computational Electromagnetics, and a part-time faculty member in the Beckman Institute Photonic Systems Group. His professional interests are computational electromagnetics, photonic systems, high-speed digital circuits, fast algorithms, and stochastic optimization.

For more information about the course contents and requirements, and to register for the course, go to: <http://www.ieee.org/organizations/eab/distance.htm>. The tuition for this pilot offering of the course is: Member price, \$350. List price: \$400. For more information about this educational opportunity contact Peter Wiesner, IEEE Educational Activities, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331; Phone: 732.562.5500; Fax: 732.981.1686; E-mail: p.wiesner@ieee.org

IEEE Pairs Up With Teachers To Help K-12 Students Learn Technology

Piscataway, NJ, 29 January, 1999 -- Fifteen members of the IEEE Pre-College Education Coordinating Committee (PECC), a cross-section of engineers and educators, recently developed a framework for an IEEE pre-college education initiative. The framework was developed after the committee brainstormed ways in which the IEEE and the engineering community can collaborate with teachers to foster innovative teaching strategies among K-12 science, math, and technology teachers.

Formed in October 1998 at the Technological Literacy Counts workshop in Baltimore, MD, the PECC is one of the few IEEE committees that actively recruits non-engineers. Pete Lewis, Educational Activities Staff Director, contends, "It's important that the IEEE take an active role in enhancing the technological literacy of K-12 students. We can only do so by listening to the educational needs of those on the front lines, the teachers themselves."

In a round-table discussion format, participants sought to answer the following questions:

- In this rapidly growing technology age, WHAT tools/resources do K-12 educators need in order to most effectively teach their students science, math, and technology subjects?
- As the world's largest technical professional society, HOW can the IEEE, and the engineering community at large, help teachers foster technological literacy among their students?

A participating and appreciative eighth-grade science teacher from Oklahoma said, "I am so glad the IEEE is breaking out of the 'box' and reaching out to teachers." In the coming months, the IEEE will form a specific action plan for its pre-college education initiative. For more information, contact Barbara Stoler, IEEE Educational Activities, 445 Hoes Lane, PO Box 1331, Piscataway, NJ, 08855-1331; e-mail: b.stoler@ieee.org.

IEEE Spectrum On-Line

The IEEE has responded to members' requests by building Spectrum Village, an on-line community offering two ways in which you may interact with IEEE members and others interested in electrotechnology.

First, there's Message Boards, a full-featured HTML-based threaded discussion system, where users communicate by topic. It allows you to post questions and responses on topics from software and electric vehicles, to student life and engineering employment. New groups may be started daily by registered users.

Secondly, they offer live, moderated chat events with special guests from the world of electrotechnology, including industry analysts, authors, and editors. Users can pose questions to the panelist(s) during live events, which are held in the village Auditorium. Both preceding and following live events, users are invited to chat with each other in real-time in the Discussion Room.

A schedule of live chat events will be posted shortly, but the Message Boards is up and running, and needs only your comments and support to help it grow. Please visit Spectrum Village and let us know what you think. It is accessible from our home page or go directly to <http://www.spectrum.ieee.org/village/index.html>

The IEEE Educational Activities Board Seeks Nominations For Annual Awards

PISCATAWAY, NJ, 8 February, 1999 - The Educational Activities Board (EAB) of the IEEE is currently accepting nominations for the 1999 EAB Awards. The deadline for nominations is 30 April, 1999. In June, the

EAB Awards and Recognition Committee will review all nominees and determine recipients for the following awards:

- Meritorious Achievement Award in Accreditation Activities – recognizes IEEE members for outstanding contributions in accreditation of engineering, engineering technology, and computer science programs.
- Meritorious Achievement Award in Continuing Education - recognizes IEEE members for the design, delivery, or management of continuing education activities for IEEE members.
- Major Educational Innovation Award - recognizes IEEE members for outstanding innovation in an educational field appropriate to the mission of the IEEE.
- Meritorious Service Citation - recognizes IEEE members for outstanding and sustained service to the aims and objectives of the Educational Activities Board.
- Employer Professional Development Award - recognizes organizations employing IEEE members for contributions to employee continuing education and professional development

Nomination packets must include the following materials:

- A nomination letter that details the achievements of the nominee
- A complete vita of the nominee (except for the Employer Professional Development Award)
- A cover sheet listing the name of the EAB award being sought for the nominee, and the name, address (both postal and e-mail), and telephone and fax numbers of both the nominator and nominee
- Up to three letters of endorsement and not more than five pages of materials supporting the claims of contributions or achievements NOTE: For the Employer Professional Development Award, letters of endorsement must include at least one from an employee who is an IEEE member, and one from the director of an IEEE region in which the organization's contributions were made.

Recipients of these awards will be announced at the Frontiers in Education Conference in November 1999. Nomination materials should be sent to Rae Toscano, Manager, EAB Administration, via e-mail, r.toscano@ieee.org, or post: IEEE Educational Activities, 445 Hoes Lane, Piscataway, NJ, USA, 08855-1331. For more information, nominees should contact Rae by e-mail, phone (732.562.5482), or fax (732.981.1686).

NEW IEEE-USA RESUME REFERRAL SERVICE ENGINEERS THE RIGHT MATCH

WASHINGTON, Feb. 10, 1999 – High-tech professionals have a new tool for career advancement: the IEEE-USA Resume Referral Service. And like its popular cousin, the IEEE-USA Job Listing Service <<http://www.ieeeusa.org/jobs.html>>, the service is free to U.S. IEEE members.

"Over the past few years, we've developed the nation's premier job-posting service for technical professionals; it was a natural next step to introduce a top-of-the line resume database for our members," said IEEE-USA Employment Assistance Committee Chair Gary Johnson. "With industry claiming a lack of skilled high-tech workers, we expect the database to become very quickly a hot property for employers seeking access to the IEEE's rich talent pool. "

The IEEE-USA Resume Referral Service is administered by Resume-Link, the largest publisher and distributor of resume databases in the world. IEEE members who enroll remain in the database for one year with option to renew. Every six months, they will be asked to update their information, or, if they choose, to remove their information from the database. The confidentiality option allows members to exclude specific companies from reviewing their information. Companies who are interested in a member's resume credentials will contact the member to further discuss possible opportunities.

U.S. IEEE members can enroll via the Web at URL <<http://www.ieeeusa.org/EMPLOYMENT/resume.html>> or by hard-copy form. To request a form, or for more information, interested members can contact Resume-Link at 614-923-0608 or socmember@resume-link.com.

Employers who seek skilled technical professionals should contact Resume-Link's Dave Meagher at 614-923-0600, ext. 329, or dmeagher@resume-link.com, for access to the IEEE-USA resume database.

INFORMATION- AND ELECTROTECHNOLOGY CONSULTANTS INVITED TO REGISTER FOR 1999 IEEE-USA DIRECTORY

WASHINGTON, Feb. 12, 1999 – IEEE-USA's Alliance of IEEE Consultants' Networks (AICN) has issued an invitation to information- and electrotechnology consultants to advertise their consulting services in a national print directory and an established searchable Web database. The Fourth Annual IEEE-USA Directory of Electrotechnology and Information Technology Consultants will be published by April 30.

The Directory includes a listing of hundreds of electrical, electronics, software and management consultants and their services alphabetically, by state and by category -- with a listing of specialties. It also supplies readers with a roster of IEEE Consultants' Networks, providing contact information for local referrals, as well as for the coordinating committee. Although local consultants' network directories are also available, this national directory serves as another useful tool in assisting prospective clients looking for qualified experts.

For inclusion in the searchable 1999 database or to update a 1998 listing, consultants can submit their information online at <<http://www.ieeeusa-consultants.org/submissions/submit.html>>. The deadline for submission is March 15, 1999, and the cost is \$50.00 for IEEE members (\$75.00 non-members). Registrants may pay electronically or by sending their check with a reference copy of the application form to the IEEE-USA office. Applications may also be submitted on 3.5" disk in ASCII (DOS) text or in hard-copy form (\$10 surcharge). Consultants may obtain a hard copy of the application by contacting IEEE-USA's Marnie Clark at 202-785-0017, ext. 314, or <m.clark@ieee.org>.

The print 1999 Directory of Electrotechnology and Information Technology Consultants will be available free by contacting IEEE-USA's William Anderson at 202-785-0017, ext. 330; 202-785-0835 (fax); or <w.anderson@ieee.org>. Clients can also access the database of consultants on IEEE-USA's World Wide Web site at <http://www.ieeeusa.org/consultants>>. Users can search the database by name, technical specialty or state.

SPEAKERS ON TECHNICAL ENTREPRENEURSHIP SOUGHT FOR IEEE-USA S-PAC SPEAKERS BUREAU

WASHINGTON, Feb. 18, 1999 -- The IEEE-USA Student Professional Awareness Committee is recruiting speakers to join the national Student Professional Awareness Conference (S-PAC) speakers bureau.

According to Committee Chair Julie Gaevert, "We are specifically looking for speakers who can talk to engineering students about the pros, cons and how-tos of starting a business or becoming a consultant." The committee reimburses the travel expenses of S-PAC speakers.

S-PACs are student-planned and -executed conferences on nontechnical, career-related subjects not usually covered in the standard engineering curriculum. Those interested in sharing their wisdom and experience on entrepreneurship topics should contact IEEE-USA's Ann Hartfiel at a.hartfiel@ieee.org or 202-785-0017, ext. 341.

The IEEE Cincinnati Section Member Names and Phone Numbers

Cincinnati Section Voice Mail (call for meeting reservations)	629-9380
Ron Harbaugh - Chairman	352-2941, Ron.Harbaugh@CinPD.RCC.ORG (E-mail)
Jim Everly - Vice Chairman	556-4241, James.Everly@UC.Edu (E-mail)
Orest Melnyk - Treasurer	397-5419, o.melnyk@ieee.org (E-mail)
Laurie Tappel - Secretary	397-6383, ltappel@cinbell.com (E-mail)
Steve Olenick - Member-At-Large	860-3456, Ext. 138, steveo@nova-eng.com(E-mail)
Mark Strong - Member-At-Large	397-1439, m.strong@ieee.org (E-mail)
Jack Beckmeyer - Arrangements Chairman	248-0901, 248-0226 (Fax), rfschapp@cinti.net (E-mail)
Bill Lohner - PACE Chairman	385-7268
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MARCH 1999

IEEE CINCINNATI SECTION NEWSLETTER



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